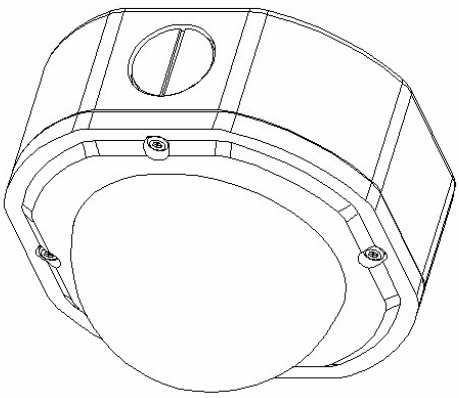
EHD525EX

1/3” Color Rugged Dome True Day/Night Camera with EXView Sensor

User’s Manual

and

Operation Instructions



Notice

This manual is presented to the users of EHD525EX series by EverFocus Electronics Corp. With years of engineering researches, EverFocus has spared no effort to provide the high quality products to the worldwide users. For the policy of continual product improvement, EverFocus reserves the right to make changes to the product specifications and documentation without notice. All the components of the products, including accessories, components, and outlook, are based on the agreements of each deal to satisfy all kinds of users. Meanwhile, please be advised that every step of operation must follow the instruction of this manual to keep EHD525EX series working under the best condition. Please notice that EverFocus will not be charged any claims or renewing cases resulted from inappropriate operation.

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Safety Warning

1. **Do not install the camera near electric or magnetic fields.**

   Install the camera away from TVs, radio transmitters, magnets, electric motors, transformers, and audio speakers as the magnetic fields generated from these devices will distort the video image.

2. **Do not install the camera in a high temperature environment.**

   Install camera away from stoves or other heat generating devices as the high temperature could cause deformation, discoloration or other damage to the camera. Install the camera where the temperature range will stay between -40 ~ 122 degree Fahrenheit.

3. **Never face the camera towards the sun.**

   Never aim the camera at the sun or other extremely bright objects whether it is in use or not.

4. **Cleaning**

   Do not touch the surface of CCD sensor by hand directly. Use a soft cloth to remove the dirt from the camera body. Use lens tissue or a cotton tipped applicator and ethanol to clean the CCD sensor and the camera lens. When the camera is not in use, put the cover cap on the lens mount.

5. **Heater**

   Heater elements can be very hot! Heaters are located inside the camera housing and will activate automatically while the environment temperature is below 50 degrees Fahrenheit. Do not touch the heater element while it’s active.

Introduction

The most technically advanced EHD series are the newest vandal-resistant Color Rugged Dome Camera from EverFocus Electronics. The Color Rugged Dome Camera can withstand a blow from a 10-pound sledgehammer and has a built-in heater that allows for operation in low temperatures. It is perfect for all high-profile crime-prone applications such as building entrances, retail stores, and shopping malls. The extremely durable EHD series are unquestionably one of the world's toughest cameras and is your best choice for vandal resistance. The EHD525EX is designed with True Day/Night function that allows removable Auto IR Cut and an enhanced B/W sensitivity, while turning the image from color to B/W.

Main Features for EHD525EX:

- High sensitivity designed with 2nd generation SONY EXView sensor.
- Sensitivity increases more than 40% compared to other high resolution sensors
- Revolutionary integrated 10-bit Digital Signal Processor (DSP) delivers excellent picture quality and performance.
- Low light sensitivity of 0.1 lux/F=1.2 is achieved by using the advanced 1/3” interline transfer color EXView CCD.
- The electronic shutter and AGC allow the camera to be used in environment with varying light levels.
- DC 12V or AC 24V switches automatically power supply; Line Lock for AC 24V.
- S/N Ratio reaches 52 dB or more.
- IR Vari-focal lens with IR Cut Removable module available.
- True Day & Night function.
- Compact size: 5.1” (W) x 3.9” (H) x 5.1” (D).
- Zinc base; polycarbonate shell withstand the impact of 10 pounds sledgehammer, smoke color or clear cover as option.
- Unique security screw lock.
- Operating temperature: -40 ~ 122 degrees Fahrenheit.
- Heater triggered when temperature is less than 50 degree Fahrenheit.

Specifications

Model:	EHD525EX
Pickup device:	SONY 1/3” interline transfer color EXView CCD
Picture element:	NTSC: 768(H) × 494(V) PAL: 752(H) × 582(V)
Horizontal Resolution:	520 TV Lines
Sensitivity:	0.1 lux / F=1.2
S/N ratio:	>52dB(AGC off)
Vari-Focal Lens:	3.6-9mm / 9-22mm IR Lens
IR Cut Removable:	Yes (Auto IR Cut Removable and B/W Sensitivity Enhanced)
Weatherproof Ratings:	IP66
Electronic shutter:	Up to 1/100,000
IRIS Control:	Auto
Auto white balance:	YES
Auto gain control:	ON/OFF switch
Back light comp.:	ON/OFF switch
Line Lock:	ON/OFF switch for 24V AC
Flickerless:	ON/OFF switch
Gamma correction:	0.45
Video output:	1.0Vp-p, 75ohm
Power source:	12V DC+/-10%, 24V AC+/-10%
Power Consumption:	5W Max. (15W when heater active; thermostatically controlled)
Sync. mode:	Internal Sync. /Line lock (Only for AC24V)
Dimension:	5.1” (W) x 3.9” (H) x 5.1” (D).
Heater auto activated temperature:	50 degree Fahrenheit
Operating temperature:	-40 ~ 122 degrees Fahrenheit, 20~80%
Weight:	3.7 lbs

Installation Instructions

1. Loosen the 4 fix screws on the housing cover by using the provided wrench (Figure 1). Carefully uncap the housing cover as the direction shown below (Figure 2); please pay attention not to damage the lens. To remove the housing cover, push the hinges to the bottom of the bracket, the hinges can be easily removed from the bracket.

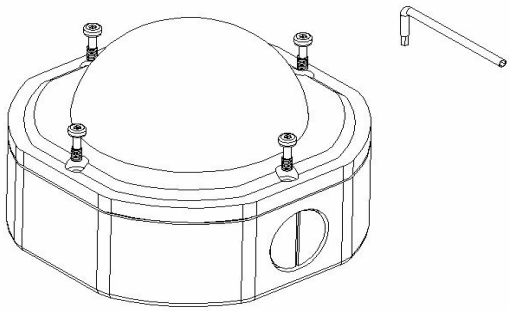


Figure 1

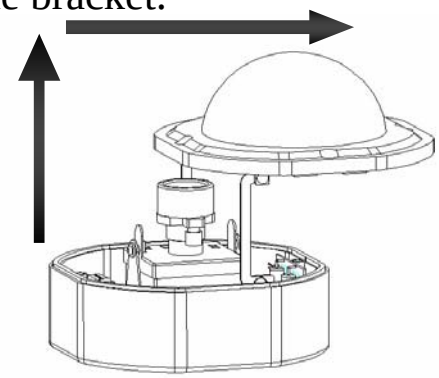


Figure 2

2. Remove the camera.

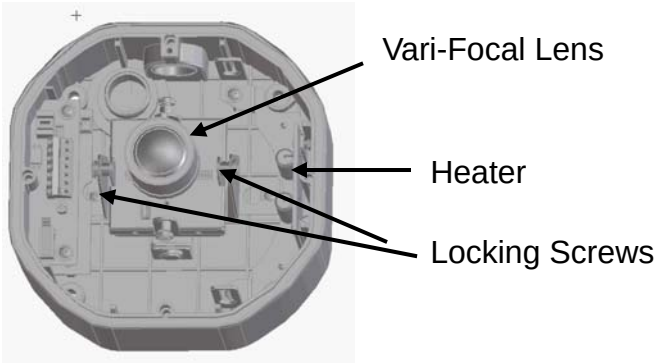


Figure 3

To remove the camera, first unplug the wire connection on the back of the camera. Then loosen the 2 locking screws on the camera base, push the camera base to the right (toward heater direction, as shown in Figure 3), remove the camera from the mounting base. Reinstall the camera and the cable while the base mounting is completed.

3. Mounting the base.

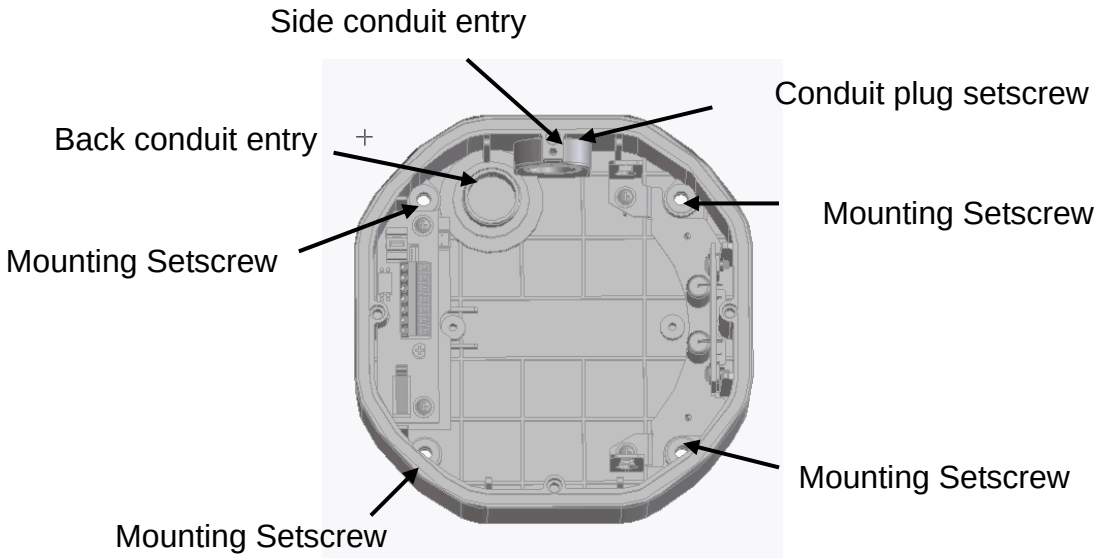


Figure 4

Attach the base to the wall or ceiling; fix the base by the 4 setscrews provided in the accessory pack. The dome weight is approximately 3.7 lbs, please make sure if the mounting is strong enough to support the weight. If not, please reinforce the mounting according to the environment.

Note: The diameter of the screw hole is 4.7mm.

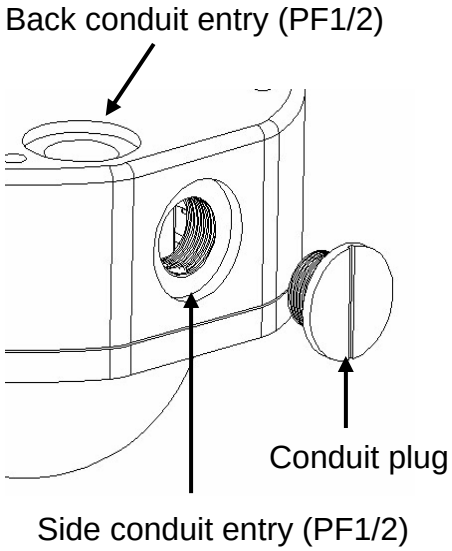


Figure 5

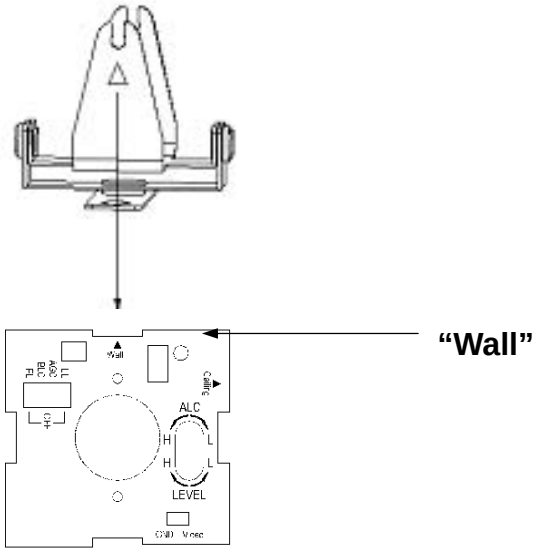
The camera comes with a conduit plug pre-installed in the PF 1/2 conduit entry on the side. The screw can be removed and installed in the back conduit entry. Loosen the conduit plug setscrew (as shown in Figure 5) before removing the conduit plug.

Caution: To prevent moisture leaking into the housing, apply an appropriate gasket or sealant around the conduit connection.

4. Re-assemble Camera

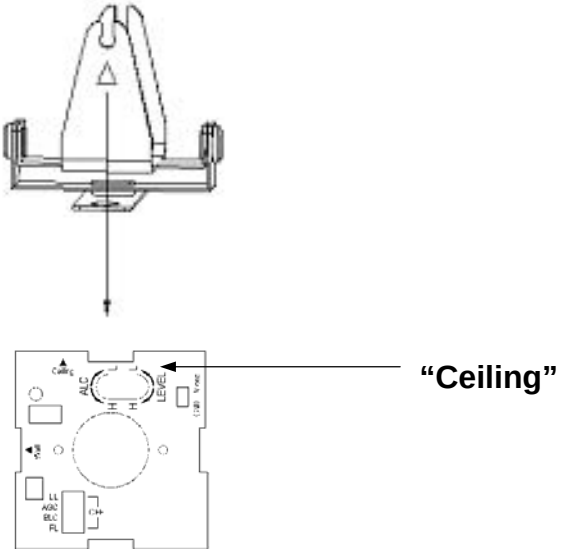
I. When mounting COLOR RUGGED DOME CAMERA on the wall, please aim the "**Wall**" in line with the triangle "▲" marked on the lead frame. (Factory default)

Figure 6-1



II. When mounting COLOR RUGGED DOME CAMERA on the ceiling, please aim the "**Ceiling**" in line with the triangle "▲" marked on the lead frame.

Figure 6-2



5. Wire Connection

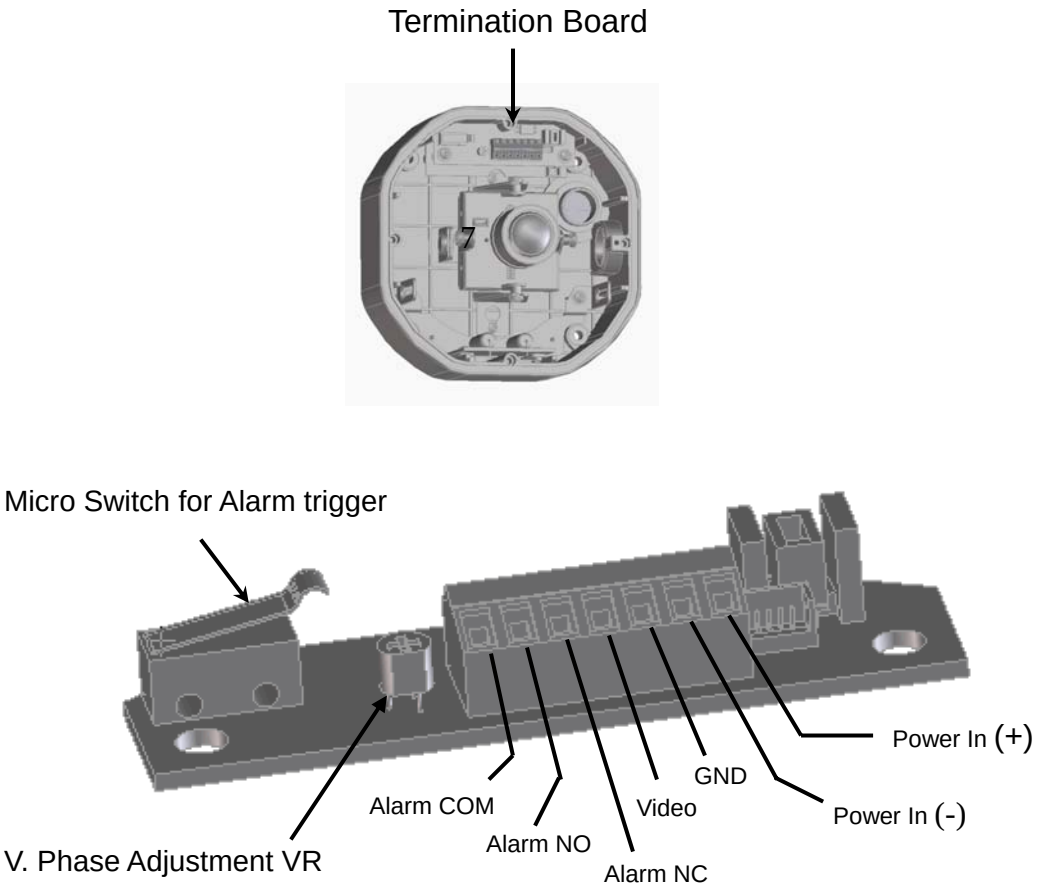


Figure 7

Connect the power supply cable (AC24V/DC12V), video output and alarm output to the proper connectors shown as Figure 7.

The V. Phase adjustment screw is located on the termination board. The vertical phase may require adjustment to synchronize the vertical phase of the camera with other cameras in the system when it is to be used in the line-lock sync mode. Make sure the vertical phase adjustment of the camera does not match other cameras.

Note: The inner part of power plug is positive. The pigtail wire with the white stripe is positive.

6. View Angle Adjustment

The camera can be rotated 360° horizontally, 140° vertically and 60° 3’rd axis view angles (as shown in Figure 8). Adjust the proper camera view angle as needed. If a vari-focal lens is used, you may adjust the focus and zoom of the lens to bring the object in focus. Be sure to loosen the locking screws on the lens before you do the adjustments.

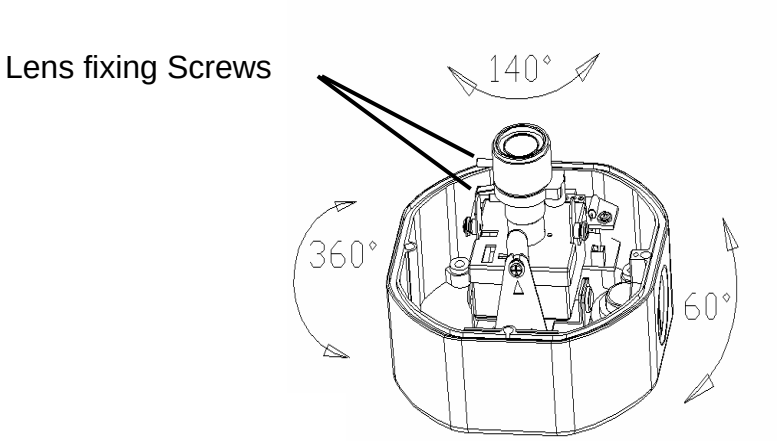


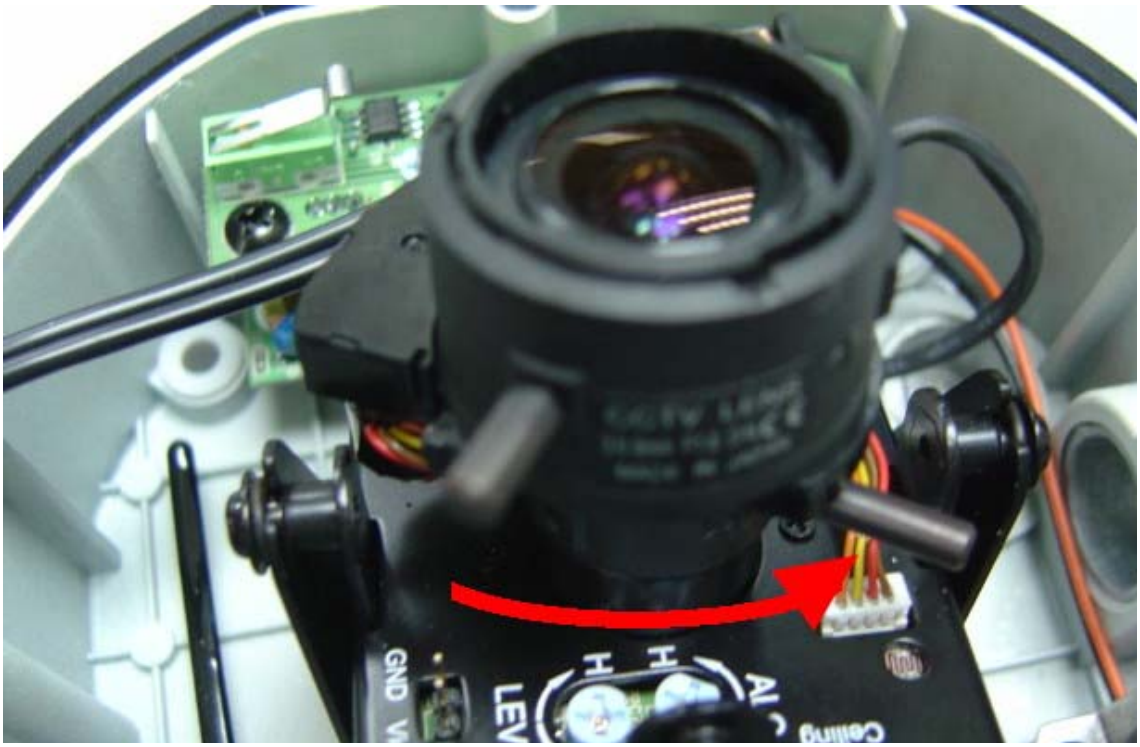
Figure 8

7. Reposition the adjustment stick (only for 3.6-9mm Vari-focal lens)

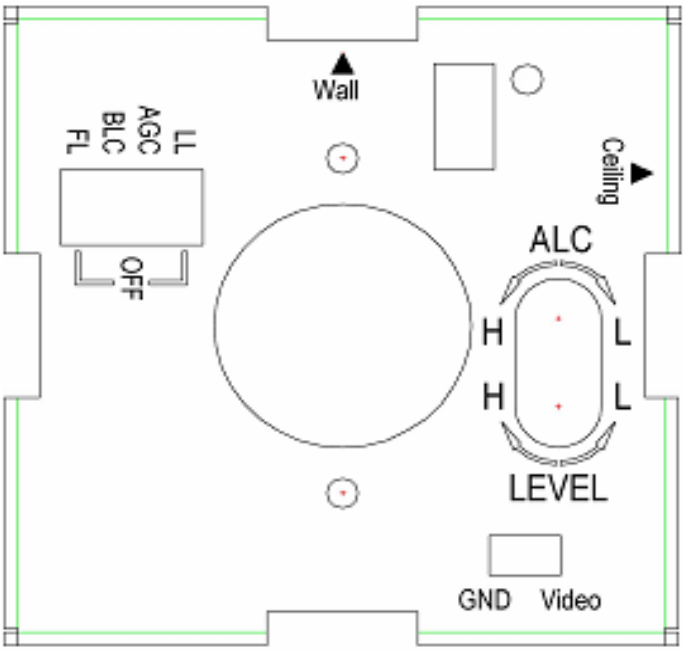
a) The default position of adjustment stick is shown as below:

b) While zooming In/Out with the adjustment stick, it may obstruct other adjustments of Iris Level and Video Output.

c) In this case, you can gently take off the adjustment stick and place it to the other hole at its right-hand side. This will allow you to adjust zooming function smoothly.



Dip Switch Functions



Vari-Focal Lens

LL (Line-Lock) OFF/ON

Set the line-lock off the camera will synchronize to the internal time base. Set the line-lock on, the camera's vertical synchronization can be driven by the AC signal in the power lines.

Note: Line-Lock sync mode operation is possible only when used with an AC power source; it's not possible with a DC power source.

The default setting is ON.

AGC (Automatic Gain Control) OFF/ON

AGC ON: Signal strength sensitivity automatically adjusts to the high or low light conditions. The default setting is ON.

AGC OFF: This setting should be turned switched to in an environment with a constant light source.

Dip Switch Functions

BLC (Back Light Compensation) ON/OFF

When BLC is turned ON, the AGC, ES and IRIS operating points are determined by averaging over the center area instead of the entire field-of-view, so that a dimly-lit foreground object at center area can be clearly distinguished from brightly-lit backgrounds.

BLC should not be used unless it is needed to compensate a subject with a light behind it.

The default setting is OFF.

FL (Flickerless Function) ON/OFF

When picture flicker fiercely, turn FL on, then the camera will stabilize the speed of electronic shutter at 1/100(PAL) or 1/120(NTSC) automatically, and reduce the flicker immediately.

The default setting is OFF.

IRIS Level Adjustment

Brightness Level can be adjusted from the IRIS level VR.

- Turn counterclockwise to L to get darker picture.
- Turn clockwise to H to get brighter picture.

IRIS ALC Adjustment

To select light metering method – This settting adjusts the gain and iris level simultaneously.

- Turn the IRIS ALC Adjustment VR counterclockwise for Average Metering.
- Turn the IRIS ALC Adjustment VR clockwise for Peak Metering. Too high of a setting will result in a noisy picture.

Simple Instructions for the Desiccant Pack

To prevent humidity from building inside the dome, use the desiccant pack which absorbs humidity:

1. Adjust all settings first and place the desiccant pack on the horizontal rod, then bend the horizontal rod and fix it.
2. Install the outer cover and tighten the screws.

Installation steps for the EHD series:

Step 1.

Step 2.

Bend the horizontal rod and fix the desiccant

Step 3.

Install the outer cover and tighten the screws

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